

REMARKS

Entry of the foregoing amendments, reconsideration and reexamination of the subject application, as amended, pursuant to and consistent with 37 CFR 1.112, and in light of the remarks which follow are respectfully requested. By the present amendments previous claims 138-172 are cancelled in favor of new claim 173-223. The new claims correspond to the elected subject matter which are directed to assays using a human bitter taste receptor referred to herein as hT2R61 which relates to the elected nucleic acid sequence and protein sequence respectively contained in SEQ ID NO:7 and 8. Applicants note that nucleic acid sequences encoding this bitter taste receptor were allowed in the parent application and that this allowance was after submission of functional data and a reference demonstrating that this bitter taste receptor responds to bitter ligands as disclosed in the specification including saccharin and saccharin derivatives. For similar reasons and in view of the above amendments and the remarks below this application should also be in condition for allowance.

Turning now to the Office Action, claims 138-160, 164 and 172 were rejected under 35 USC 112 second paragraph as allegedly being indefinite. The rejections are respectfully traversed to the extent they may be applicable to the current claims.

The meaning of “putatively” is indicated to be ambiguous. Applicants respectfully note that this simply means that a compound which is identified to bind or affect the activity of hT2R61 will likely (putatively) affect bitter taste in a human subject and provides for this anticipated property to be confirmed in a human taste test. It is believed that this

would be clear to a skilled artisan in view of the specification. However, if the Examiner disagrees Applicants would be willing to delete this word from the claims as it is not necessary for an understanding of the claimed invention.

The objection regarding the alleged lack of clarity hybridization conditions is moot as the sole independent claim has been revised to incorporate specific stringent hybridization conditions consistent with the teachings in the application at page 31.

The objection to claim 172 is moot as the current claims do not contain improper dependencies.

Based on the foregoing, withdrawal of the 112 second paragraph rejection is respectfully requested.

Claims 138-160, 164 and 172 were also rejected under 35 USC 112 first paragraph as allegedly being broader than the scope of the enabling disclosure. This rejection is respectfully traversed

Essentially, the Examiner's position appears to be that the specification only enables assays using T2R61 polypeptides which possess at least 95% sequence identical to the T2R61 polypeptide contained in SEQ ID NO:8, and does not enable the use of fragments of this sequence, or sequences of higher sequence divergence to SEQ ID NO:8 absent undue experimentation.

It is anticipated that the present claims should cure this rejection. With respect thereto it is noted that the current claims as recited in the only independent claim 173 are

directed to assays using T2R61 sequences which correspond to (1) SEQ ID NO:8, (2) T2R61 polypeptides that are at least 95% identical to SEQ ID NO:8 and which specifically bind to a ligand that also binds to SEQ ID NO:8 or (3) polypeptides encoded by nucleic acid sequences that hybridize under defined stringent hybridization conditions set forth therein (and recited at page 31 of the specification) which specifically bind to a bitter ligand bound by native hT2R61 having the sequence contained in SEQ ID NO:8.

Applicants respectfully submit that a skilled artisan, based on the teachings of this application could readily screen hT2R61 polypeptides encompassed by the genus of hT2R61 polypeptides embraced by the claims and identify those of which specifically bind to a bitter ligand that also binds hT2R61 such as a saccharin compound. Applicants further respectfully note that the scope of the current claims is consistent with the parent application US Serial No. 09/825,882 which now stands allowed as well as other taste receptor application recently allowed by the Examiner of record herein. These cases were allowed based on similar facts to those seen herein, i.e., claims were directed to or required a taste receptor later demonstrated to possess the ability to specifically respond to specific taste ligands as predicted in the as-filed disclosure.

Also, Applicants respectfully note that the rejection should be moot as the current claims do not embrace T2R61 receptor fragments but rather are directed to full-length hT2R61 sequences possessing the ligand binding properties of native hT2R61.

Based on the foregoing, the current claims are believed to be free of the prior 112 first paragraph rejections.

Claims 138-160, 164 and 172 also stand rejected under 35 USC 112 first paragraph based on alleged lack of written description support from the as-filed disclosure. The Examiner's position seems to be substantially the same as the 112 enablement rejection of the same claims. Essentially the Examiner concludes that the as-filed specification allegedly would not place a skilled artisan in possession of the genus of hT2R61 polypeptides embraced by the prior claims since the specification does not explicate what fragments or residues of hT2R61 may be modified with retention of T2R61 functionality (T2R61 ligand binding properties).

Applicants respectfully submit that this rejection should be moot based on the present amendments. As noted above the sole pending independent claim 173 has been written to only encompass assays that use hT2R61 sequences that either possess at least 95% sequence identity to the native T2R61 polypeptide contained in SEQ ID NO:8 or are directed to use of polypeptides encoded by sequences that hybridize under defined stringent hybridization conditions to hT2R61 and further require that such T2R61 polypeptides specifically bind to a ligand that also specifically binds to the native T2R61 contained in SEQ ID NO:8. Applicants' disclosure clearly would convey to a skilled artisan how to produce such a genus of T2R61 polypeptides and also how to identify those of which are functional based on whether they retain the property of binding to a taste ligand also bound by T2R61 such as saccharin or a saccharin derivative.

Additionally, Applicants believe that the rejection should be vacated claims have been rewritten in a manner consistent with the claims allowed in the parent application as

well as other taste receptor patent applications recently allowed by the Examiner of record herein. As in the parent application the current claims are limited to assays that include use of a defined genus of taste receptor polypeptides wherein a skilled artisan would know how to produce and use such sequences in the claimed assays and how to confirm their functionality based on whether they retain the ability to bind a taste ligand also bound by the native human T2R61 taste receptor polypeptide.

Based on the foregoing withdrawal of the 112 written description rejection is respectfully requested. It is believed that these remarks and amendments should place this application in condition for allowance. A Notice to that effect is respectfully solicited.

Applicants also believe that the appropriate fees have been authorized in connection with the entry of this Preliminary Amendment. However, in the event of variance, the Commissioner is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number 50-0206.

Respectfully submitted,



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